

# UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/750,578	12/28/2000 Andrew Worley		875.000367 (H2596-HMD)	6501
7	590 12/04/2001			
Gregory R. Stephenson			EXAMINER	
HAMILTON SUNDSTRAND CORPORATION Intellectusl Property Dept.		ORATION	GONZALEZ, JULIO C	
Mail Stop 1-1-1 Windsorl Lock	BC18 s, CT 06096-1010		ART UNIT	PAPER NUMBER

DATE MAILED: 12/04/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

P.5.

	Application No.	Applicant(s)				
	09/750,578	WORLEY ET AL.				
Office Action Summary	Examiner	Art Unit				
	Julio C. Gonzalez	2834				
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply						
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).  - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).  Status						
1) Responsive to communication(s) filed on	1) Responsive to communication(s) filed on					
2a) ☐ This action is <b>FINAL</b> . 2b) ☑ Thi	) This action is <b>FINAL</b> . 2b)⊠ This action is non-final.					
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.						
Disposition of Claims						
4)⊠ Claim(s) <u>1-10</u> is/are pending in the application.						
4a) Of the above claim(s) is/are withdrawn from consideration.						
5) Claim(s) is/are allowed.						
6)⊠ Claim(s) <u>1-10</u> is/are rejected.						
7) Claim(s) is/are objected to.						
8) Claim(s) are subject to restriction and/or	election requirement.					
Application Papers						
9)☐ The specification is objected to by the Examiner	:					
10)⊠ The drawing(s) filed on <u>28 December 2000</u> is/ar	e: a)⊡ accepted or b)⊠ objected t	to by the Examiner.				
Applicant may not request that any objection to the	Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).					
11) The proposed drawing correction filed on	is: a) ☐ approved b) ☐ disappro	oved by the Examiner.				
If approved, corrected drawings are required in reply to this Office action.						
12)☐ The oath or declaration is objected to by the Examiner.						
Priority under 35 U.S.C. §§ 119 and 120						
13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).						
a) ☐ All b) ☐ Some * c) ☐ None of:						
1. Certified copies of the priority documents have been received.						
2. Certified copies of the priority documents have been received in Application No						
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received.						
14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).						
a) ☐ The translation of the foreign language provisional application has been received.  15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.						
Attachment(s)						
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 1/2.	5) Notice of Informal I	/ (PTO-413) Paper No(s) · Patent Application (PTO-152)				

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### **DETAILED ACTION**

## Drawings

- The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "36" has been used to designate both conductive cylinder and sleeve. Correction is required.
- 2. The drawings are objected to because in figure 1, the air gap 38 and the central opening 12 seem to be the same feature of the invention using different terminology/words, are they same or different? Correction is required.
- 3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: 33 in figure 2. Correction is required.
- 4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the second hollow cylinder sealed to both end pieces disclosed in claim 2 and the conducting bars located in the axial slots and connected at either end to a conducting ring as disclosed in claim 8 and the plurality of flats against plural pieces as disclosed in claim 9 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.
- 5. The drawings are objected to under 37 CFR 1.83(b) because they are incomplete. 37 CFR 1.83(b) reads as follows:

When the invention consists of an improvement on an old machine the drawing must when possible exhibit, in one or more views, the improved portion itself, disconnected from the old structure, and also in another view, so much only of the old structure as will suffice to show the connection of the invention therewith.

Correction is required.

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The above features discussed in numeral 4, disclosed in the claims are essential features of the invention which are not shown in the drawings.

## Claim Rejections - 35 USC § 112

- 6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

  The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
- 7. Claims 7-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 7, what is meant by the rotor been formed of "potting" material? Is it made of many materials? Can it be made of any material?

In claim 8, what is the function of the conducting ring? What are the conducting bars connected to other than the conducting ring? From where and what is been conducted? Electricity? Magnetic flux? What is the purpose/use/meaning for conducting to the conducting ring?

In claim 9, what is meant by the magnets having a plurality of pieces which in turn have a plurality of flats "against respective ones"? Against the magnets? Pieces? Flats? Also, a plurality of pieces are abutted, are these the same as the plural pieces disclosed the claim? Or are these another set of different plural pieces?

In order to advance prosecution in the merits, the Prior Art will be applied as best understood by the examiner.



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# Claim Rejections - 35 USC § 102

- 8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:
- (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.
- 9. Claims 1, 5-7, 9 and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Kawamura.

Kawamura discloses stator 6, a rotor (see figure 1), a body of ferromagnetic material 58, spaced apart permanent magnets 53, a second cylinder 4 and end pieces sealed to second cylinder (see figure 1) and a conducting cylinder 54 (see figure 8).

# Claim Rejections - 35 USC § 103

- 10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 11. Claims 2, 3 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawamura.

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Kawamura discloses stator 6, a rotor (see figure 1), a body of ferromagnetic material 58, spaced apart permanent magnets 53, a second cylinder 4 and end pieces sealed to second cylinder (see figure 1) and a conducting cylinder 54 (see figure 8). However, Kawamura does not disclose conductive rings.

On the other hand, Yashiro discloses for the purpose of providing a motor that can rotate faster and last longer, conductive rings 17b.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design a motor as disclosed by Kawamura and to modify the invention by using conducting rings for the purpose of providing a motor that can rotate faster and last longer as disclosed by Yashiro.

12. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kawamura in view of ordinary skill in the art.

Kawamura discloses stator 6, a rotor (see figure 1), a body of ferromagnetic material 58, spaced apart permanent magnets 53, a second cylinder 4 and end pieces sealed to second cylinder (see figure 1) and a conducting cylinder 54 (see figure 8).

Kawamura discloses the claimed invention except for using copper for the conductive cylinder. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use copper, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In *re Leshin*, 125 USPQ 416.

### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julio C. Gonzalez whose telephone number is (703) 305-1563. The examiner can normally be reached on M-F (8AM-5PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 305-1341 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

MESTOR RAMBEZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800

Jcg

November 13, 2001